



EVALUATION OF VARIOUS CAUSES OF LEUCORRHOEA IN SEXUALLY ACTIVE FEMALES

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ABSTRACT

Leucorrhoea is one of the most common symptoms of sexually transmitted infections which remain untreated in majority of women. When left untreated, they may lead to complications such as infertility, ectopic pregnancy and cervical cancer. If associated with pregnancy, they increase the risk of premature rupture of membranes, this further leading to increased neonatal mortality and morbidity. The present study was undertaken to evaluate the various causes of Leucorrhoea in sexually active females of age group 15 to 45 years. One hundred sexually active women in the age group of 15 to 45 years who attended gynaec OPD with complaint of vaginal discharge were selected randomly for the study. A detailed clinical history was taken and discharge was collected and appropriate tests for diagnosing candidiasis, trichomoniasis, gonorrhoea and bacterial vaginosis were done. The present study showed an incidence of 24% of candidiasis, 20% of Bacterial vaginosis, Trichomoniasis 8% and no etiological agent was found in 48% of cases which could probably be physiological.

Key words: Leucorrhoea, Candidiasis, Trichomoniasis, Gonorrhoea and Bacterial vaginosis.

INTRODUCTION

Leucorrhoea is one of the most common causes of referral to the gynaecology clinics [1]. The amount of vaginal discharge ordinarily present in the adults is such that the introitus feels comfortably moist, however this is not enough to stain the under clothing. Physiological increase in the vaginal secretion occurs in puberty, at the time of ovulation, during pregnancy and during premenstrual phase [2].

Pathological discharge is defined as the excess of normal which may be leucorrhoea or due to infections like vulvo-vaginitis caused by trichomoniasis, moniliasis, bacterial vaginosis, or gonococcal cervicitis. Non – Pathological Leucorrhoea occurs due to local causes like mucous polypi, cervical erosions, ectropion, local congestive states of pelvic organs like pregnancy, acquired retroversion, prolapsed congested ovaries, chronic pelvic inflammatory disease (PID) and even chronic constipation [3]. Vaginal normal flora includes lactobacilli, some gram

positive, gram negative, aerobic and anaerobic bacteria. Normal pH in healthy women during child bearing period is about 4.5 which is due to lactic acid. Doderlein bacilli is almost the only organism which will grow at a pH of 4 – 4.5 in vagina. As the acidity of the vagina falls and pH rises, then non-resident pathogens are able to thrive. The vagina, ectocervix and endocervix are all susceptible to various pathogens depending upon the type of epithelium present. The squamous epithelium of the vagina and ectocervix is susceptible to infection with candida species and trichomonas vaginalis and columnar epithelium of the endocervix is susceptible to infection with neisseria gonorrhoea and chlamydia trachomatis [4].

Aims and Objectives

To study the various causes of specific vaginitis after ruling out non-pathogenic causes of leucorrhoea in sexually active women.

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MATERIAL AND METHODS

A hospital based Prospective study was carried out among 100 sexually active females who were attending the gynaecology OPD at Government Victoria Hospital, Andhra Medical College, Visakhapatnam during the period from June 2012– September 2012. Study subjects were selected from the age group of 15 – 45 yrs with signs of vaginal discharge. Informed consent was taken from the participants.

A detailed clinical history and a thorough physical examination of all the cases was done and then using sterile vaginal speculum and swab, inspection and sample collection have been done.

Process:

Three smears have been spread for each patient:

- 1) With normal saline; to visualize Trichomonas vaginalis
- 2) With 10 % KOH; for whiff test and microscopic examination of Candida albicans mycelium.
- 3) For Gram's staining.

Inclusion Criteria

All women of reproductive age group and sexually active with vaginal discharge attending Gynaecology OPD and who have given informed consent for participation.

Exclusion Criteria

Pregnant women, women with abnormal vaginal bleeding, post hysterectomised women, women on hormonal therapy, oral contraceptive pills, Intra uterine device, women with cervical lesions and post-menopausal women.

RESULTS

Most of the women (34%) were between the age group of 26-30 years and all the women belonged to low socio economic status. Maximum number of women (46%) had secondary school of educational status. Most of them (36%) had completed 6-12yrs of their marital life (Table 1).

Table 1. Socio demographic variables

Socio demographic variables	Number (Percentage)
Age	
15 – 25 YRS	30(30 %)
26 – 30 YRS	34 (34%)
31 – 35 YRS	18(18%)
36 – 40 YRS	14 (14%)
41 – 45 YRS	4 (4%)
Socio – Economic Status	
Low	100(100%)
High	0(0%)
Educational Status	
Primary	40(40 %)
Secondary	46(46 %)
Intermediate	12(12%)
Degree	2 (2 %)
Marital Life	
< 1 YR	8(8 %)
1 – 5 YR	12(12%)
6-12yrs	36(36%)
13– 20 YR	32(32%)
> 20 YR	12(12 %)

Table 2. Parity status and Contraception usage

Parity	Number (percentage)
Nulliparous	12(12 %)
Primipara	18(18%)
Miltipara	70(70%)
Method of Contraception	
Condom	10(10%)
Tubal ligation	70(70%)
No contraception	20(20%)

Figure 1. Self-reported symptoms

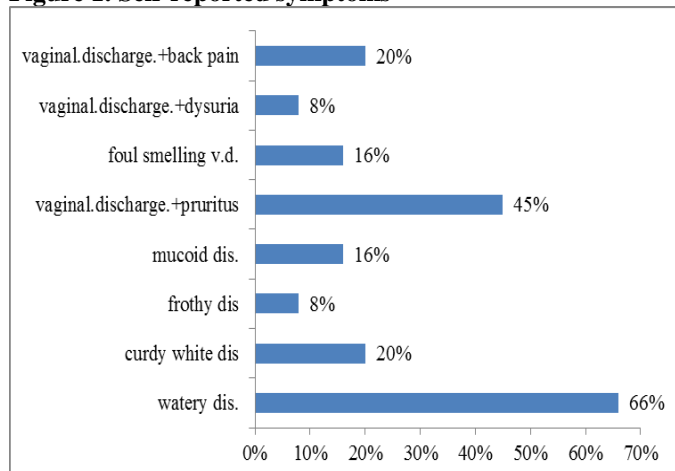
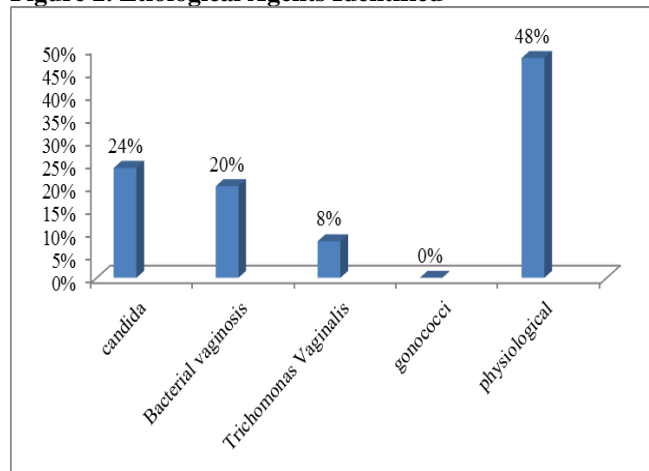


Figure 2. Etiological Agents Identified



DISCUSSION

Reproductive tract infections including sexually transmitted infections adversely affect the reproductive health of women. Despite the ability to cure reproductive tract infections it remains a major worldwide public health problem. India has a high burden of morbidity due to reproductive tract infections. Diagnosis using clinical criteria often leads to misdiagnosis as the components are subjective and depend on the acuity of the clinician and the availability of the equipment [6].

Therefore a etiological diagnosis by isolation and identification of the causative agent provides reliable information for delivering proper treatment and to avoid complications associated with bacterial vaginosis and pregnancy like prematurity, chorioamnionitis, neonatal infections and infections following cesarean section and hysterectomy.

In our study most of the women with vaginal discharge were between the age group of 26-30 yrs (34%), belonging to low socio-economic status (100%), having secondary school education levels (46%), 70 % of the women were multiparous and many of them were having marital life between 6-12 yrs (36 %) and most of them were tubectomized (70%). No one had multiple sexual partners. The most common symptom associated with vaginal discharge was pruritus (45%) followed by back pain and dyspareunia (20%), foul smelling discharge (16%). Watery type of discharge was noticed in maximum number of women i.e., 66% and curdy white discharge in 20%, frothy discharge in 8 % and muciod discharge in 16

%.The most common etiological agent identified was Candida (24%) followed by Bacterial vaginosis (20%). Trichomonas was found in 8 % and physiological leucorrhoea was found in 48%. There was no Gonococcal infection identified.

These results can be compared to another study done by Puri KJ and Bajaj K of Punjab where the incidence of bacterial vaginosis was 45%, candidiasis - 31%, trichomoniasis-2%, gonorrhoea -3% and other causes 14% [7].

CONCLUSIONS AND RECOMMENDATIONS

In our study Vaginal Candidiasis was the most common cause of leucorrhoea in sexually active women followed by Bacterial Vaginosis and Trichomoniasis.

- INDIA has high burden of reproductive tract infections morbidity. Identifying the proper etiological agent can reduce the prevalence of reproductive tract infections and thus the relevant morbidity is reduced.
- Using condom as the contraceptive method is an effective way of decreasing the prevalence of infectious leucorrhoea. By preventing vaginal pH changes and decreasing non-specific vaginal bacterial overgrowth vaginitis can be reduced.
- Maintenance of personal and perineal hygiene was found to be most important factor for reducing the vulvovaginitis.
- Health Education must emphasise on perineal hygiene and its importance to reduce the incidence of RTI's.

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